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Figure 1

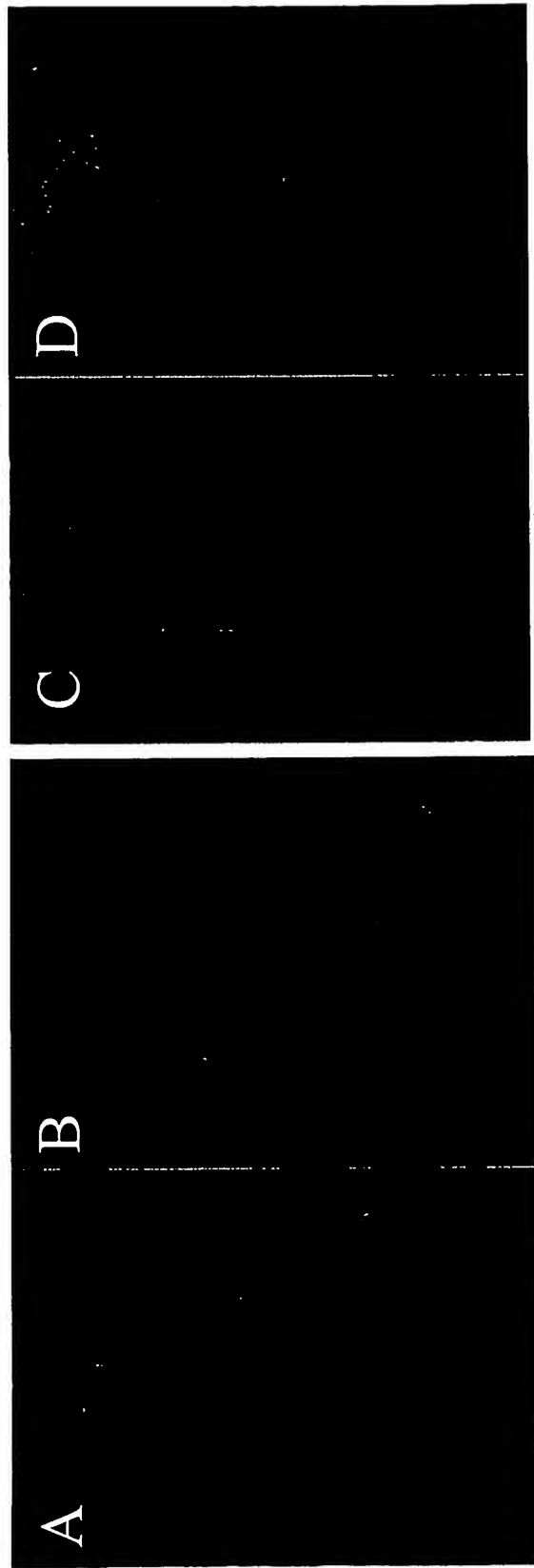


Figure 2

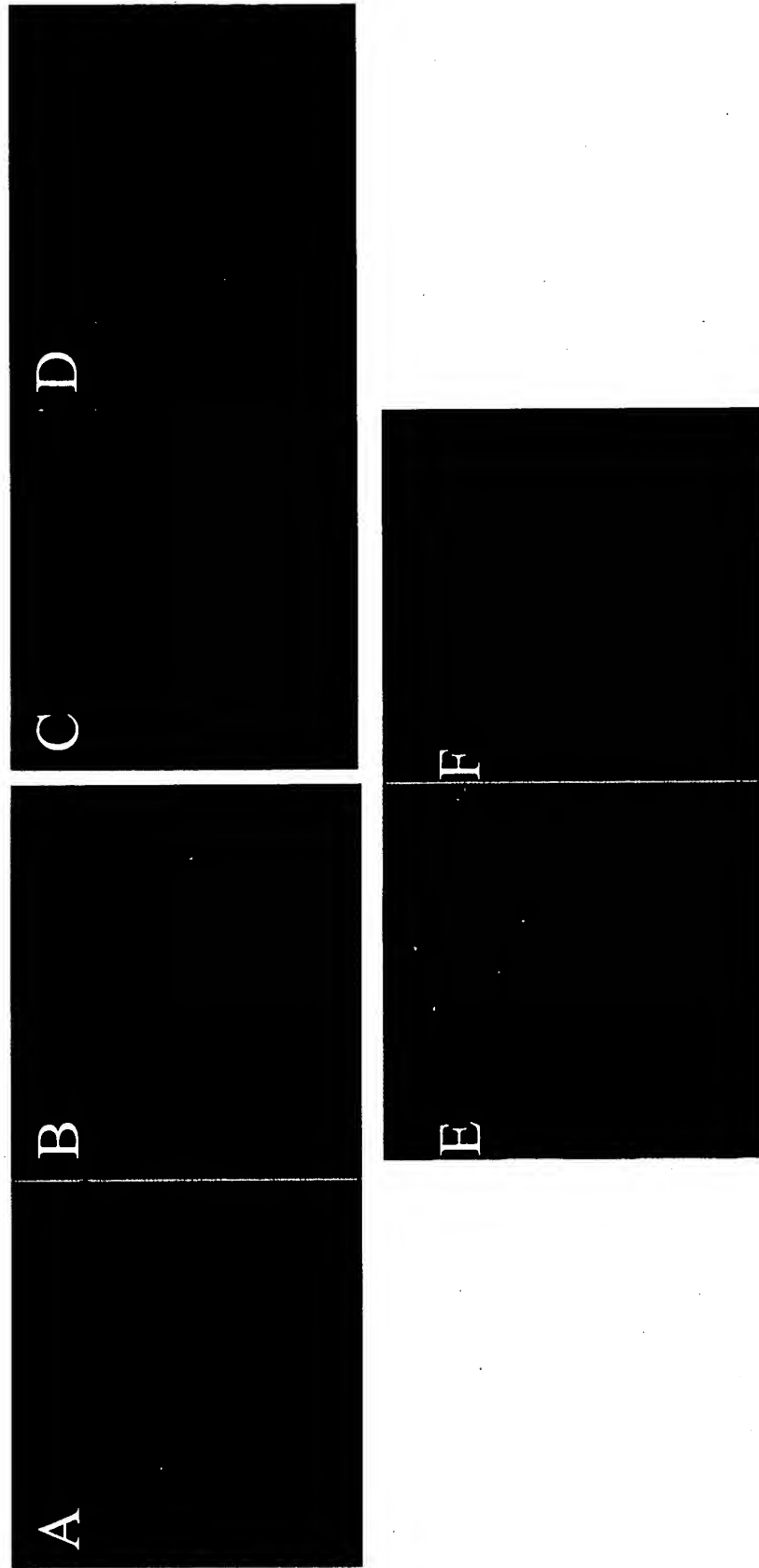


Figure 3

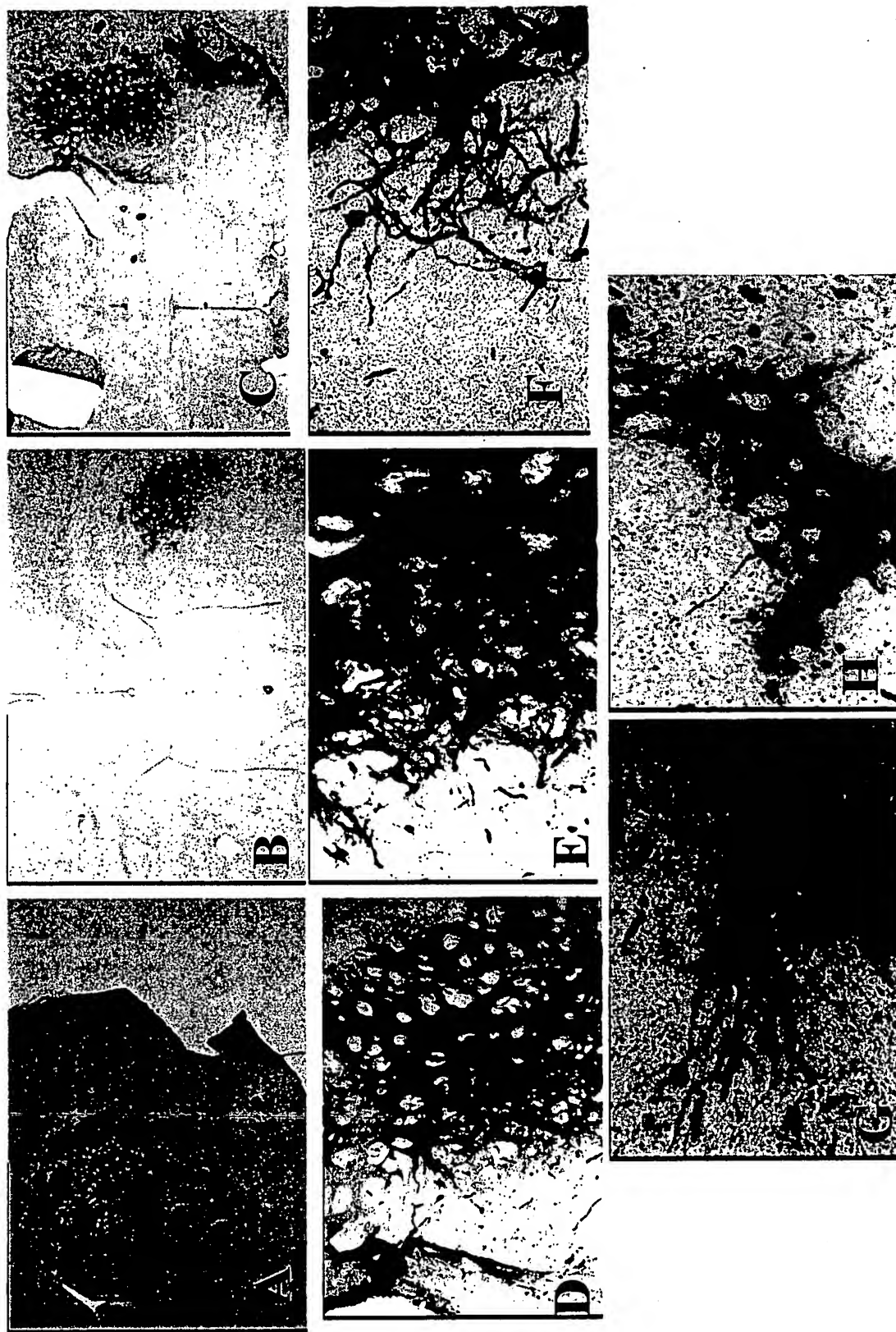


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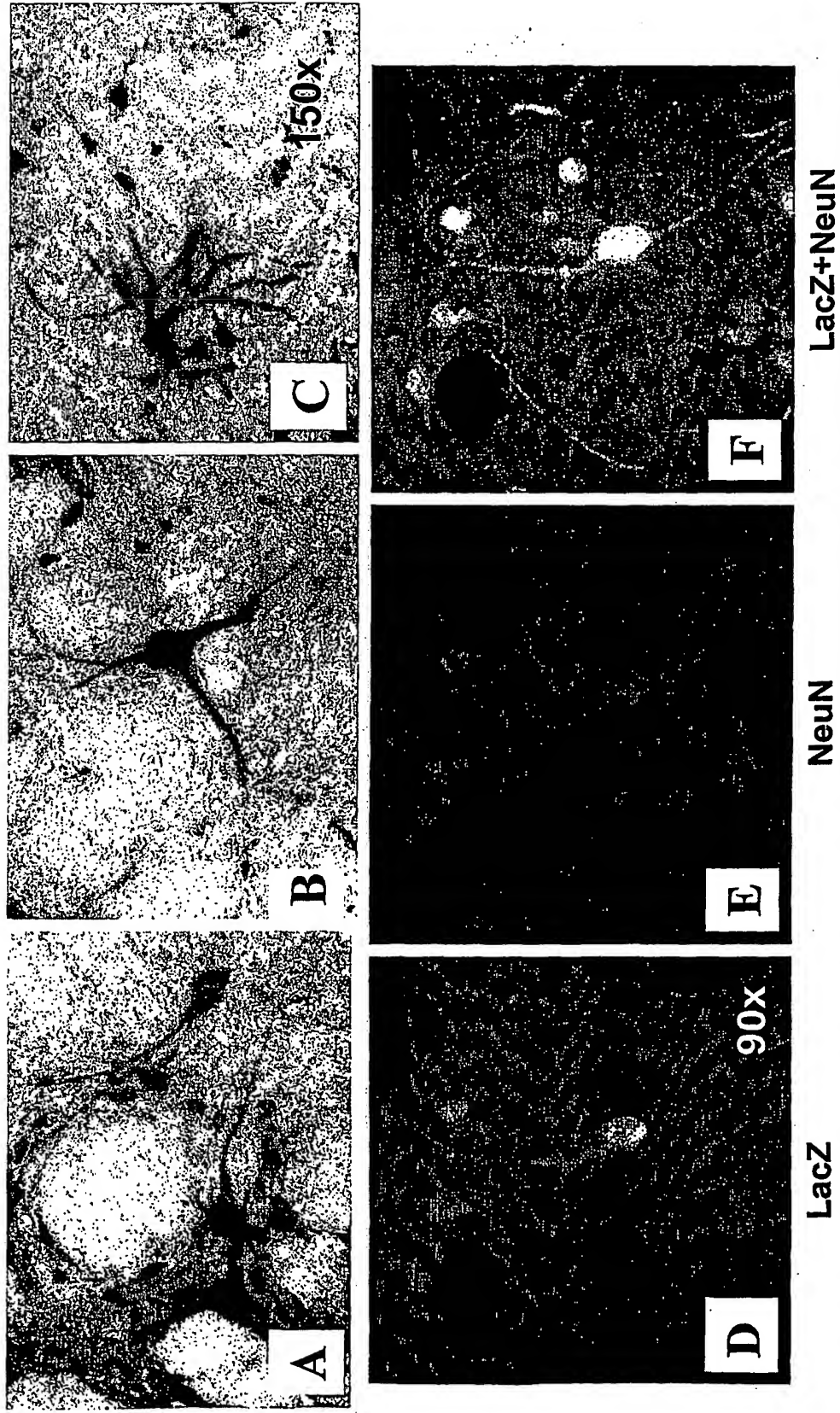


Figure 5

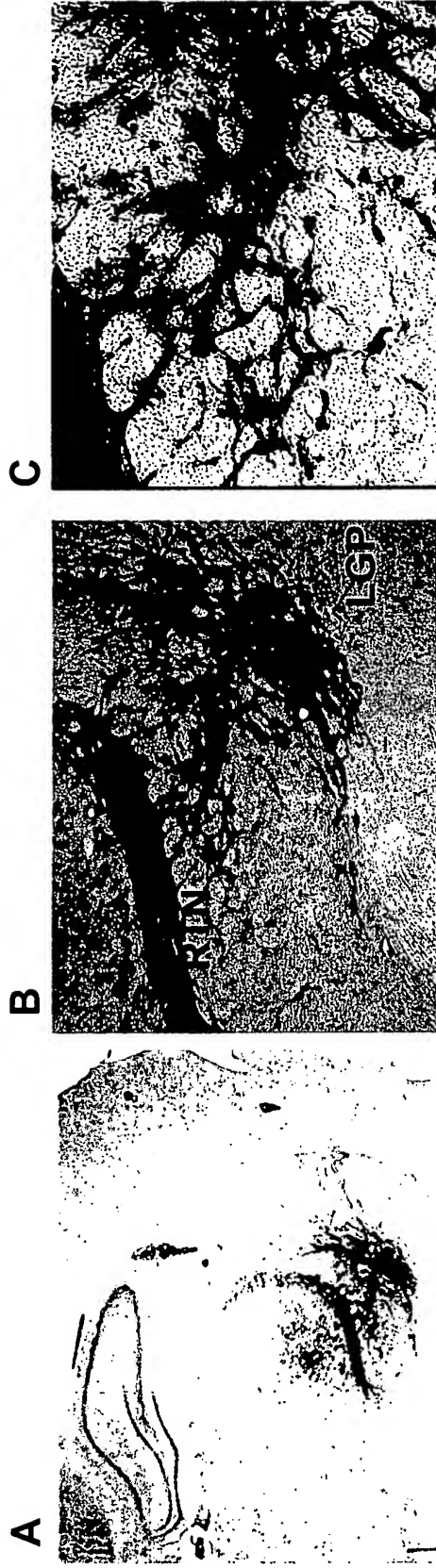
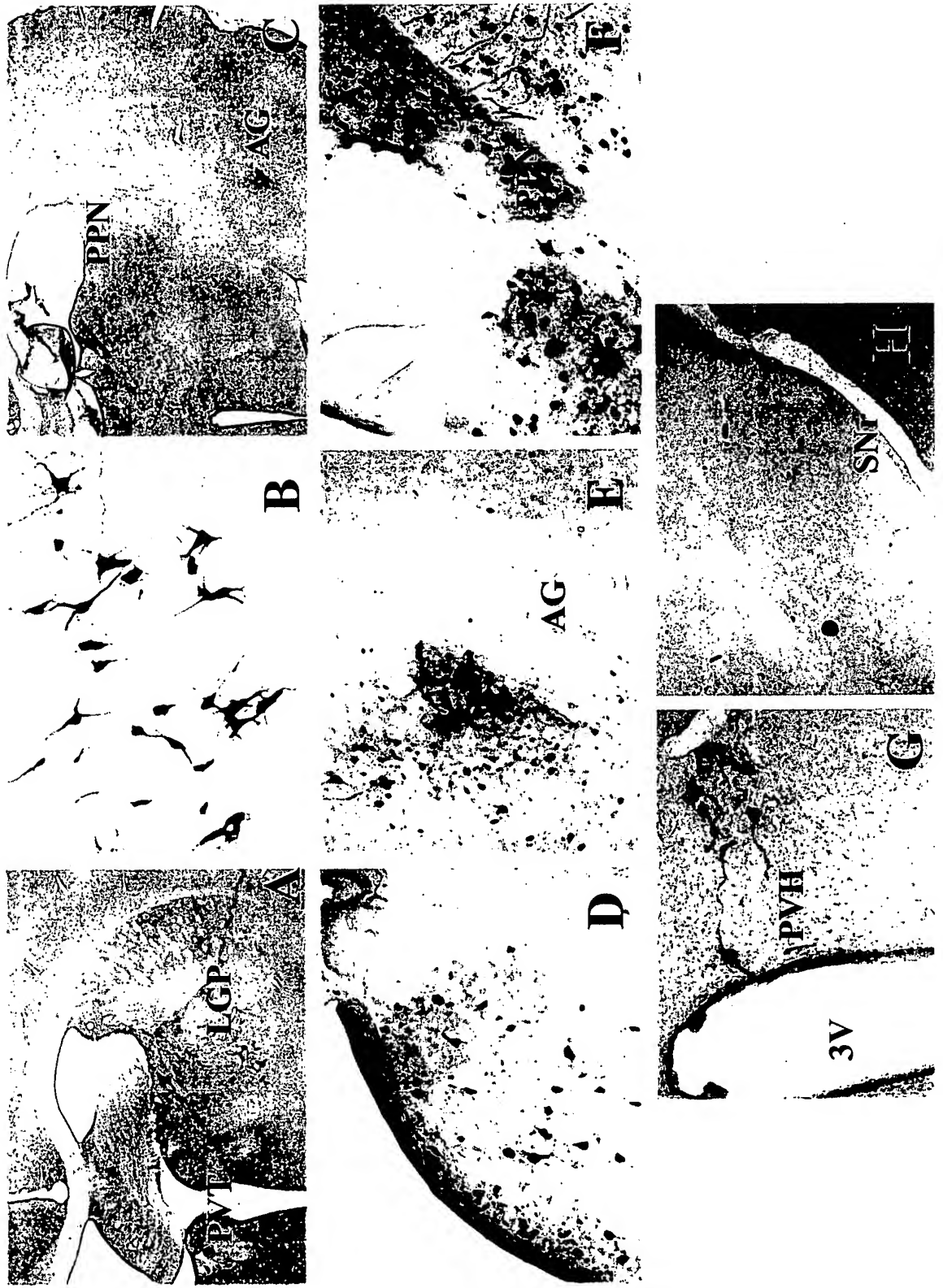


Figure 6



Figure 7



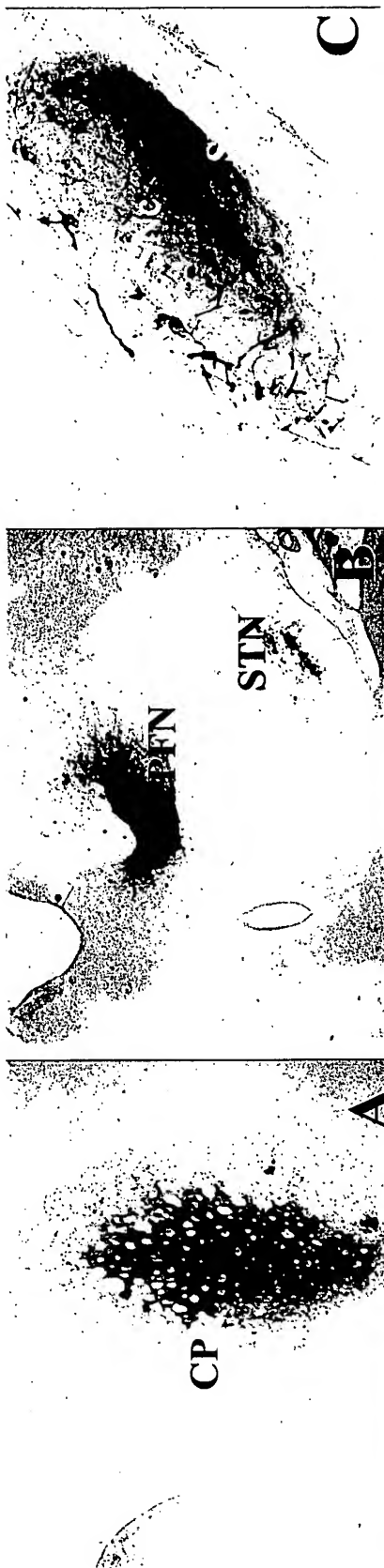


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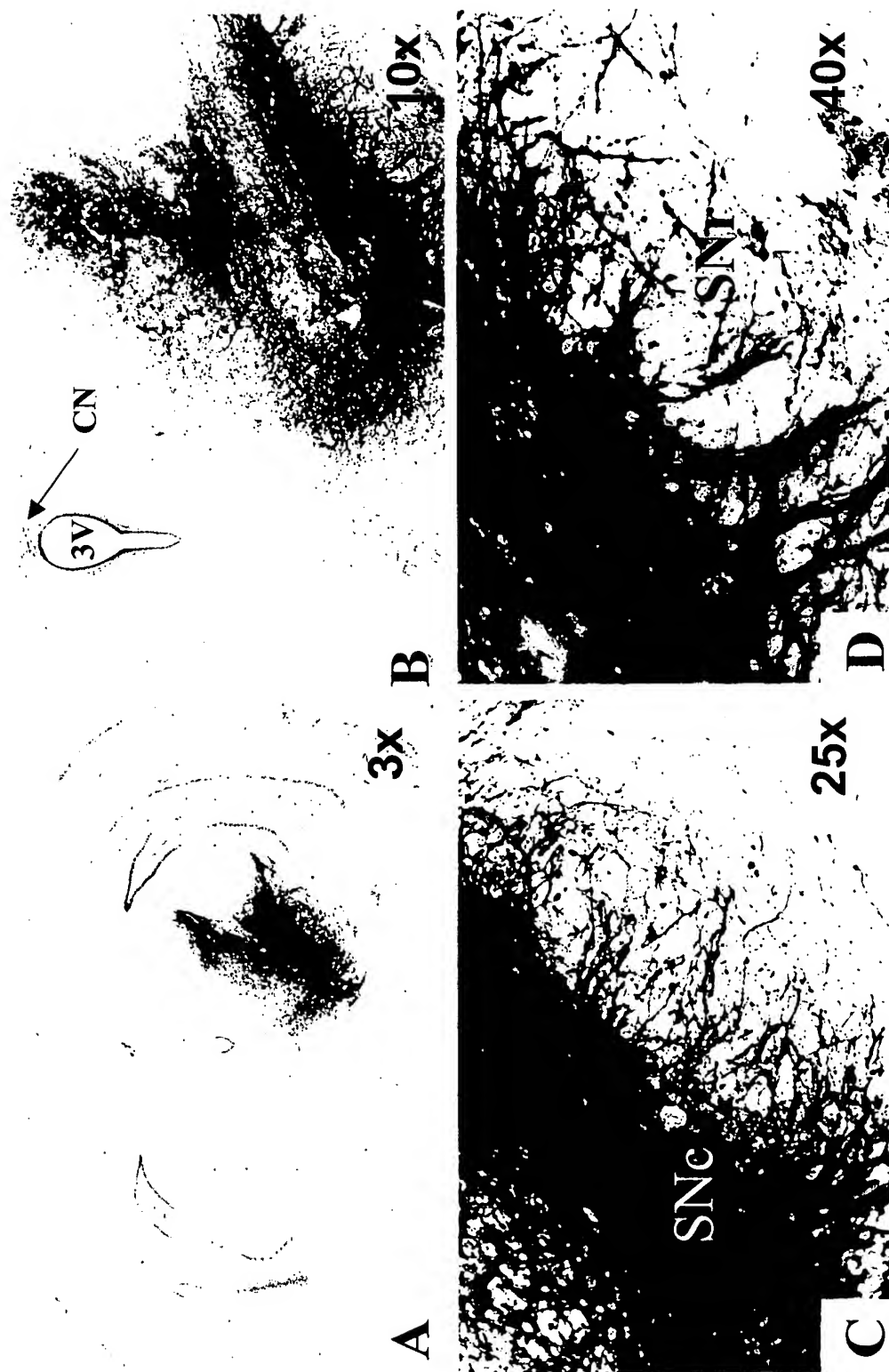


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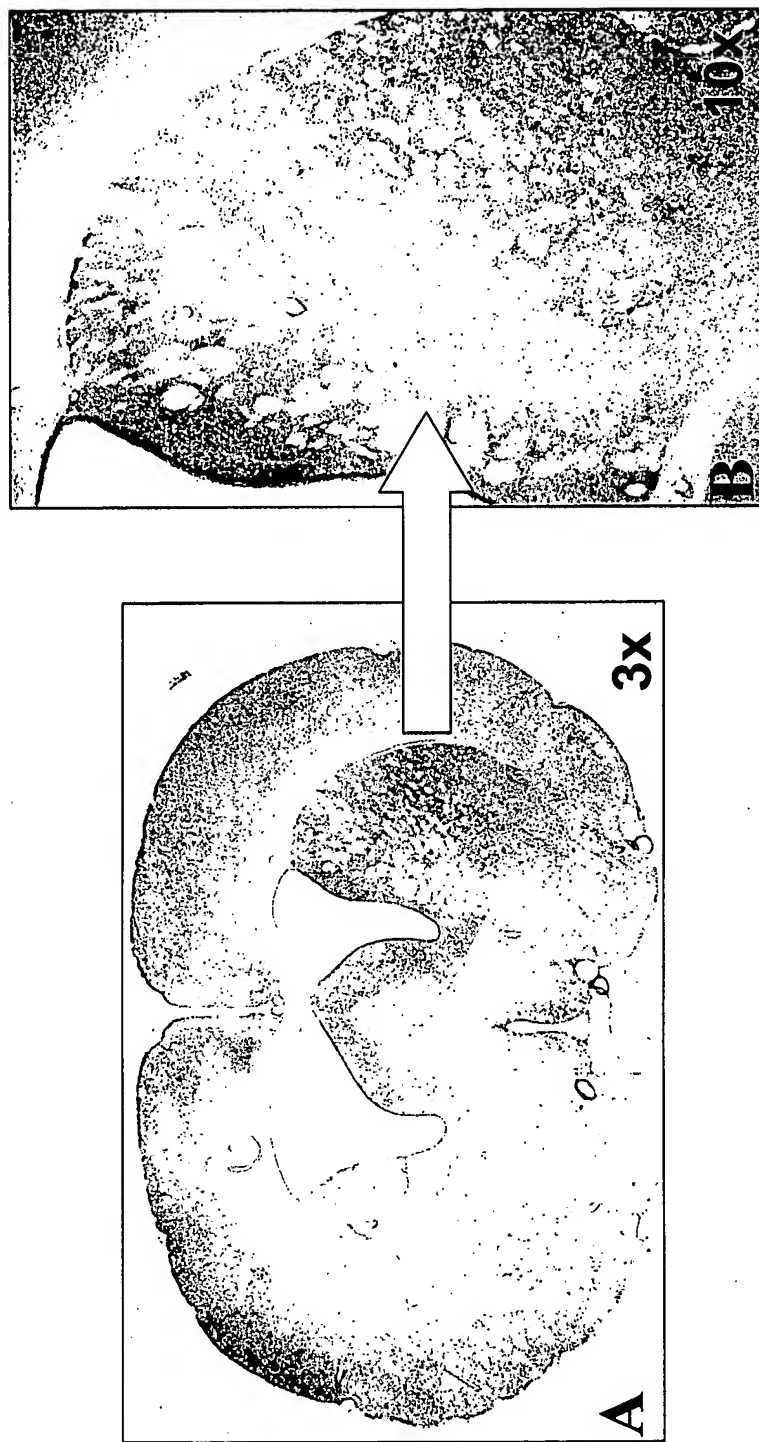


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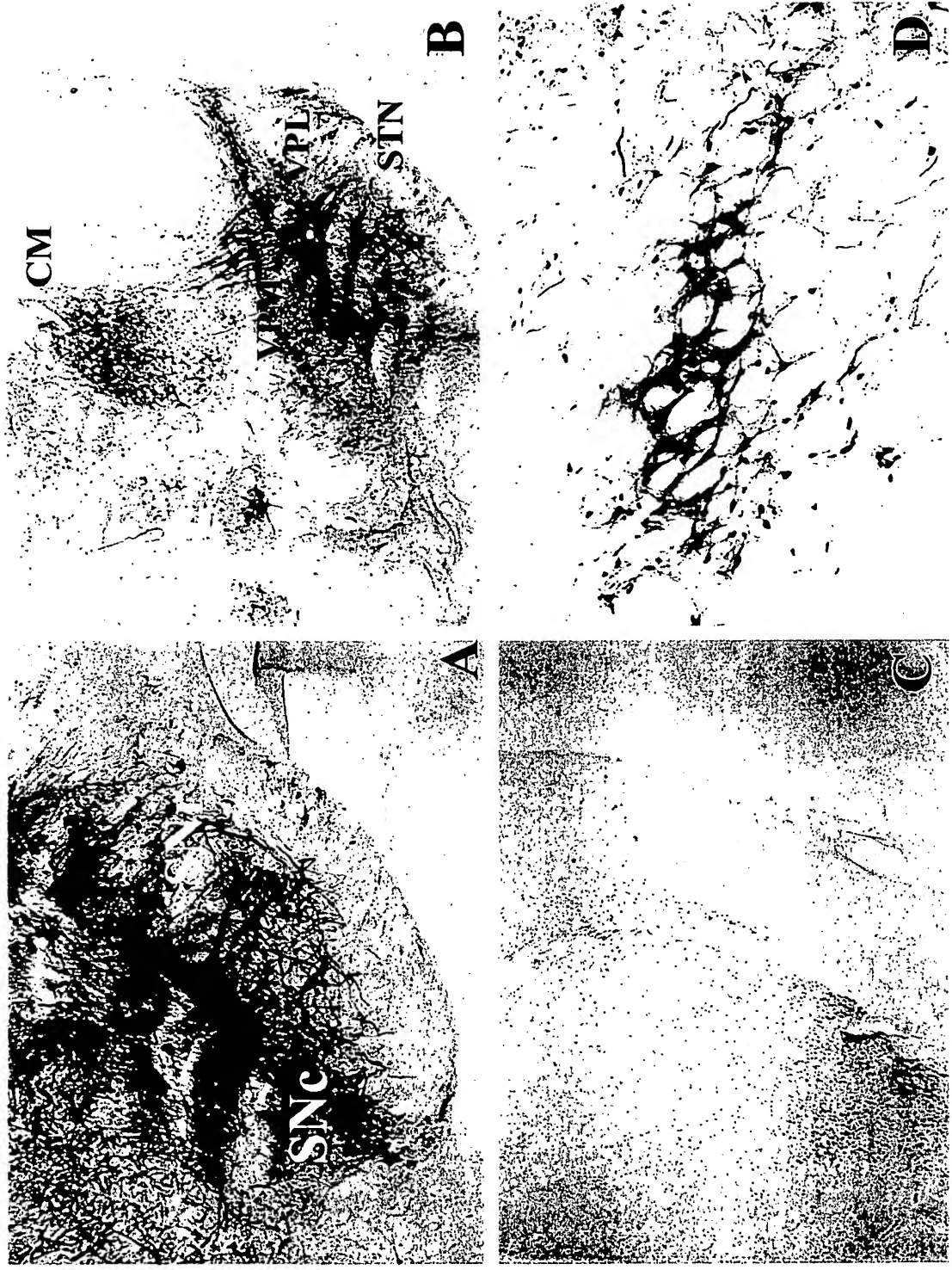


Figure 12

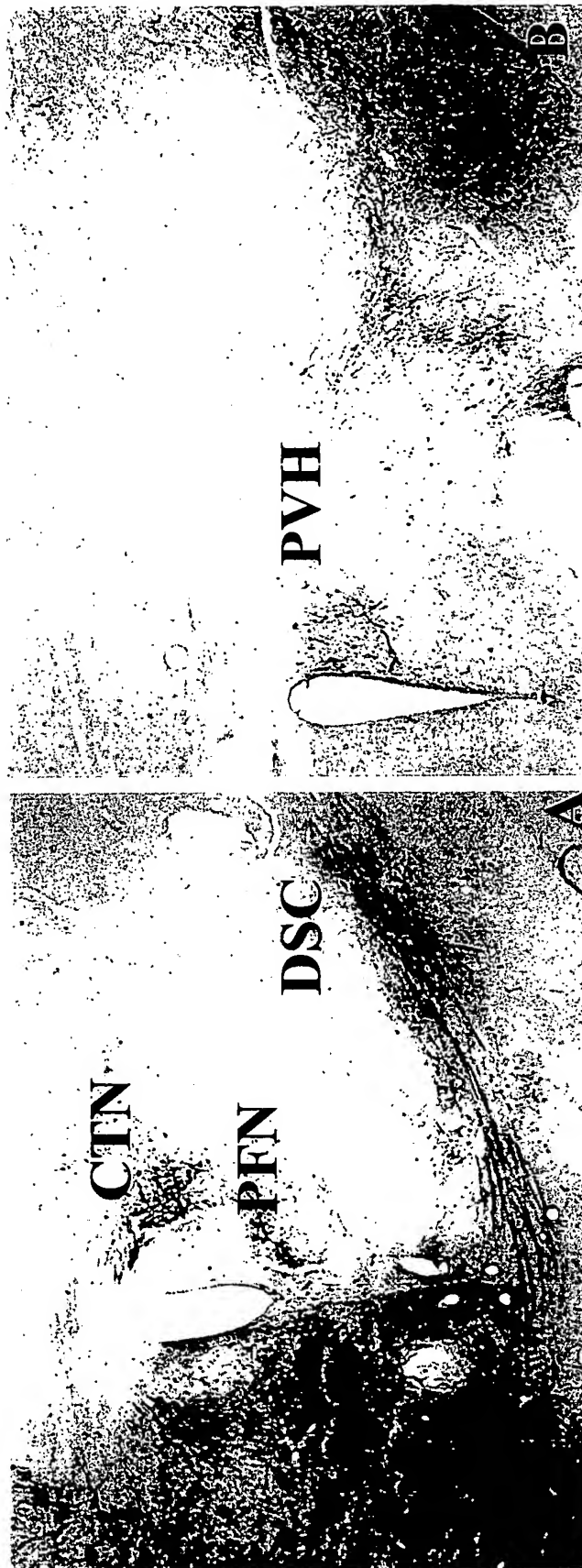




Figure 1.3

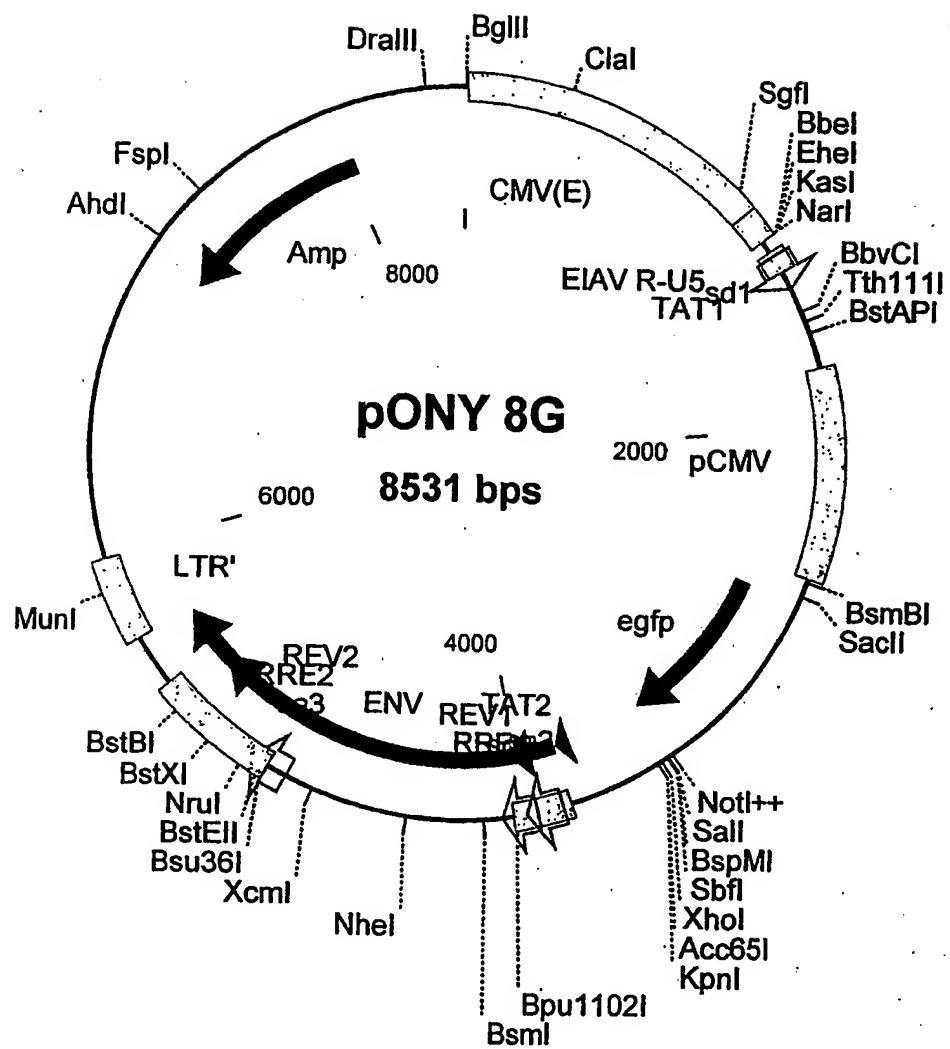
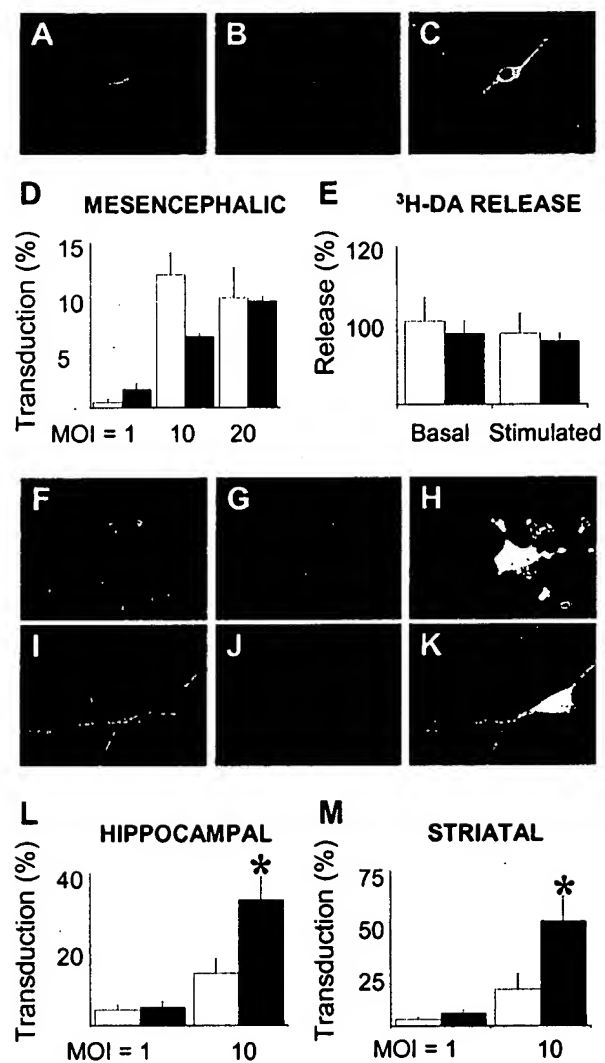


Figure 14

Figure 15



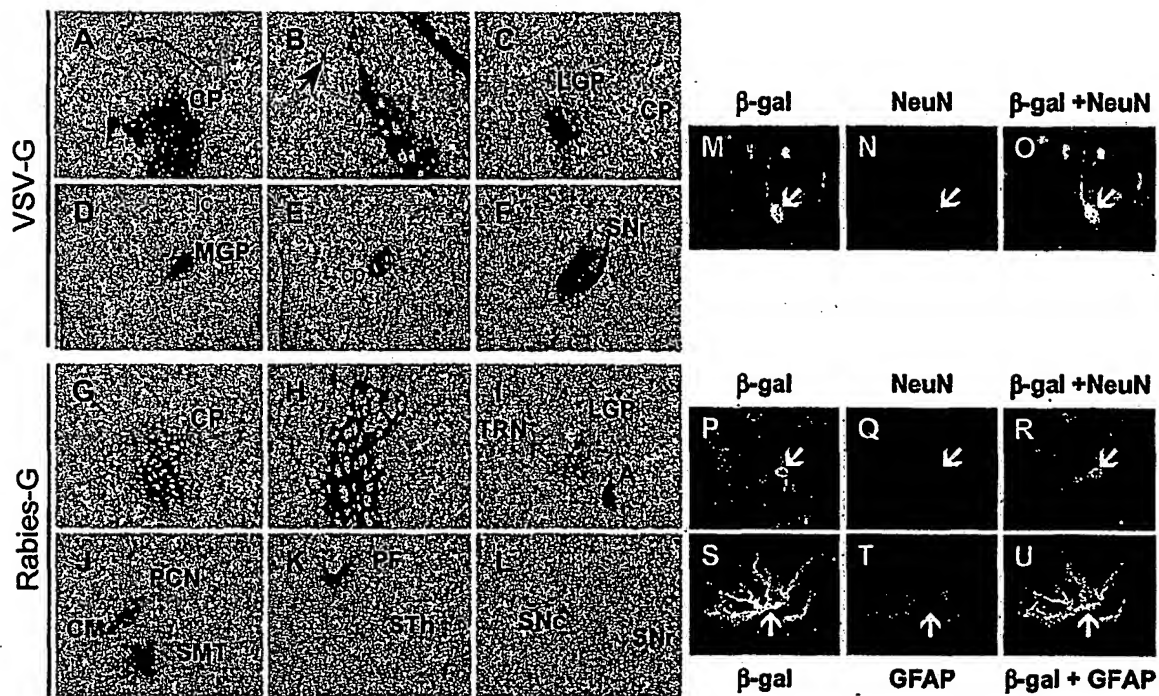


Figure 16

Figure 17

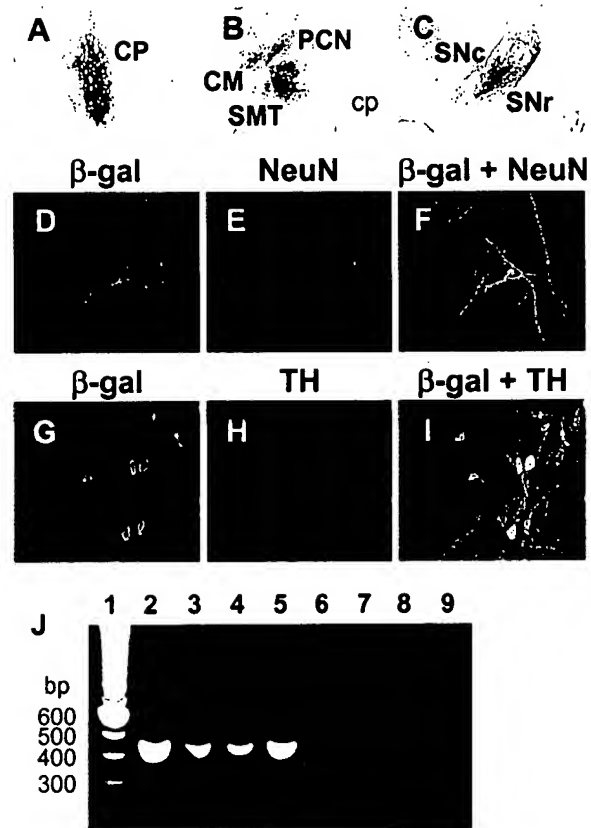


Figure 18

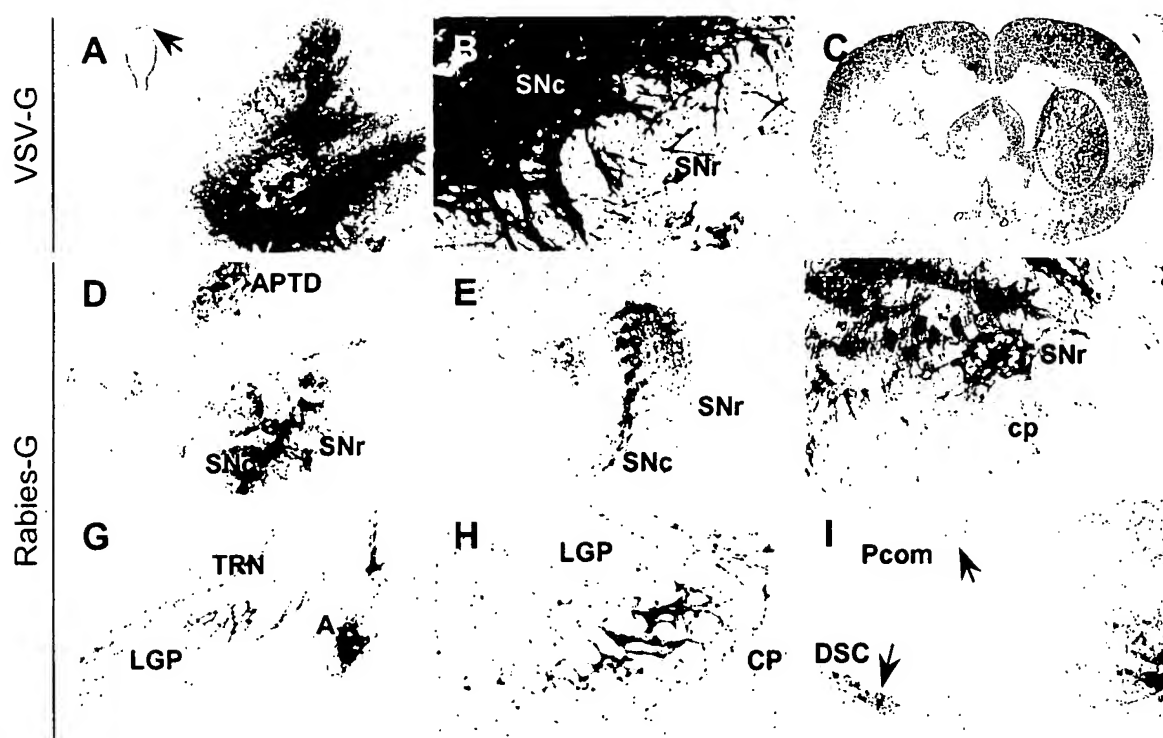


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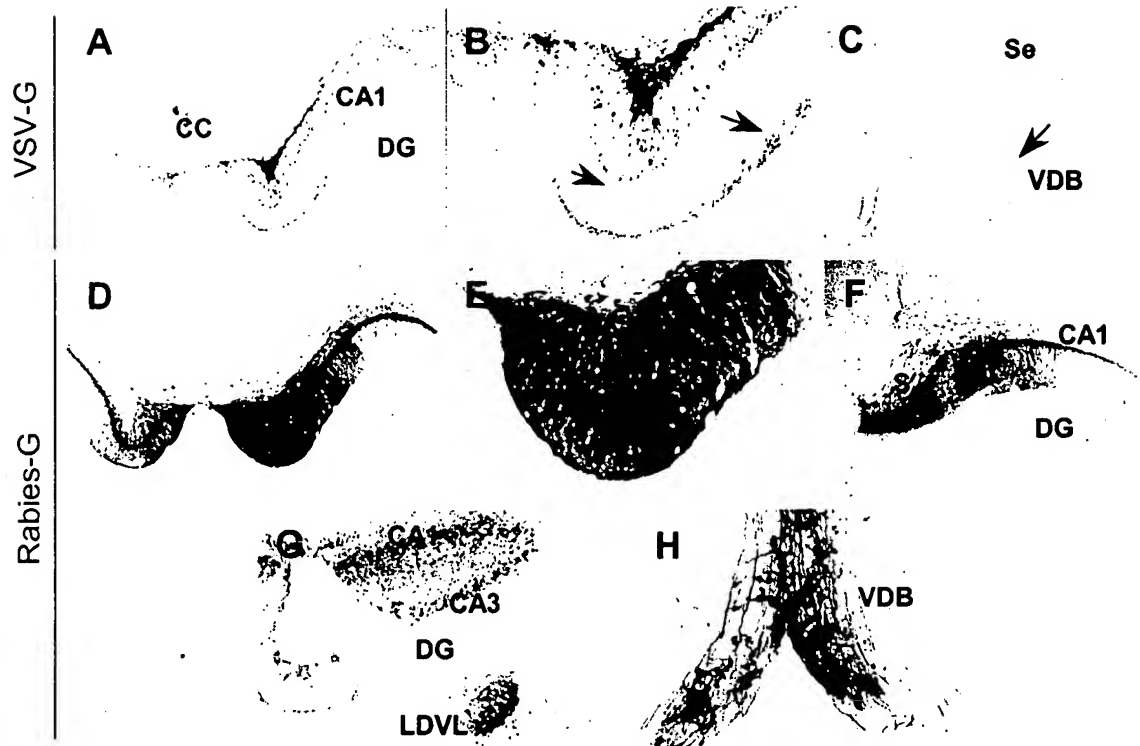


Figure 20

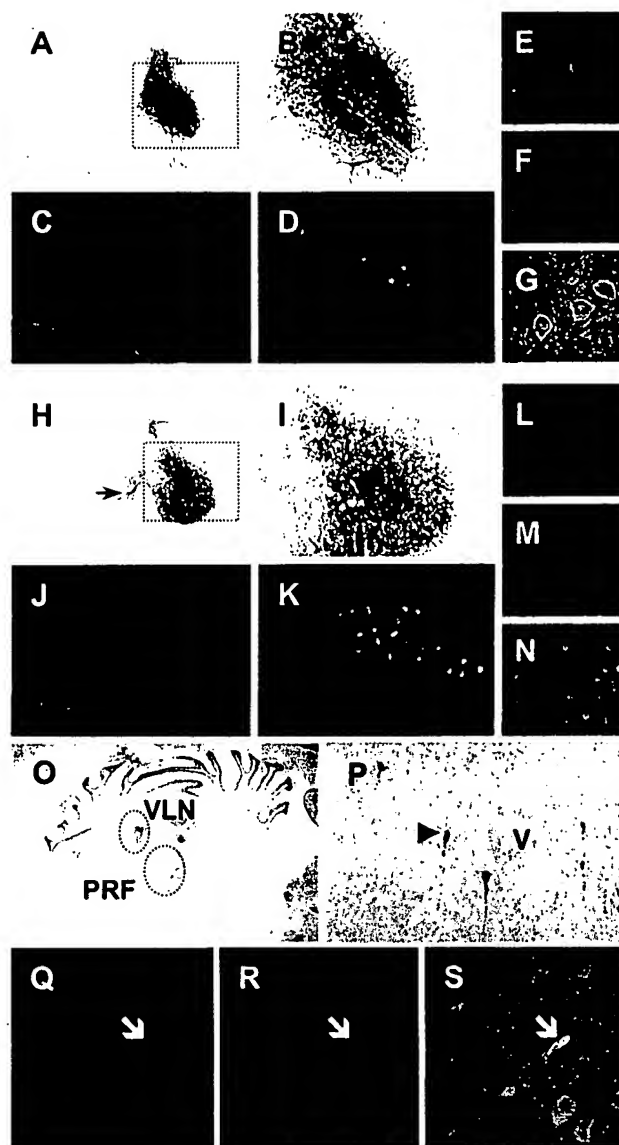


Figure 21

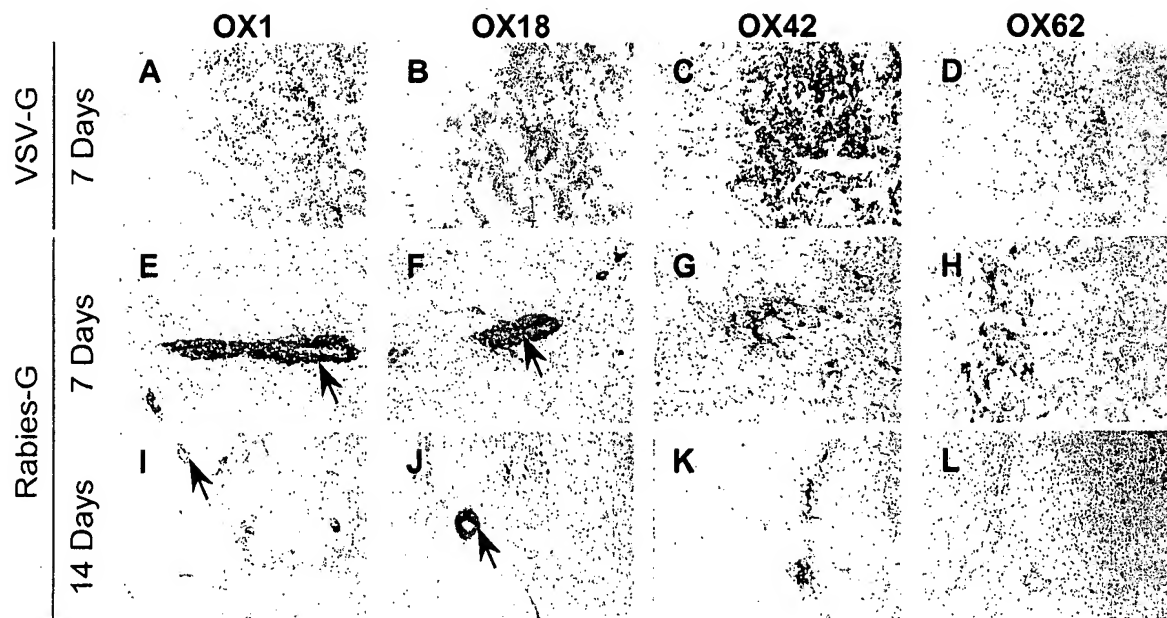


Figure 22

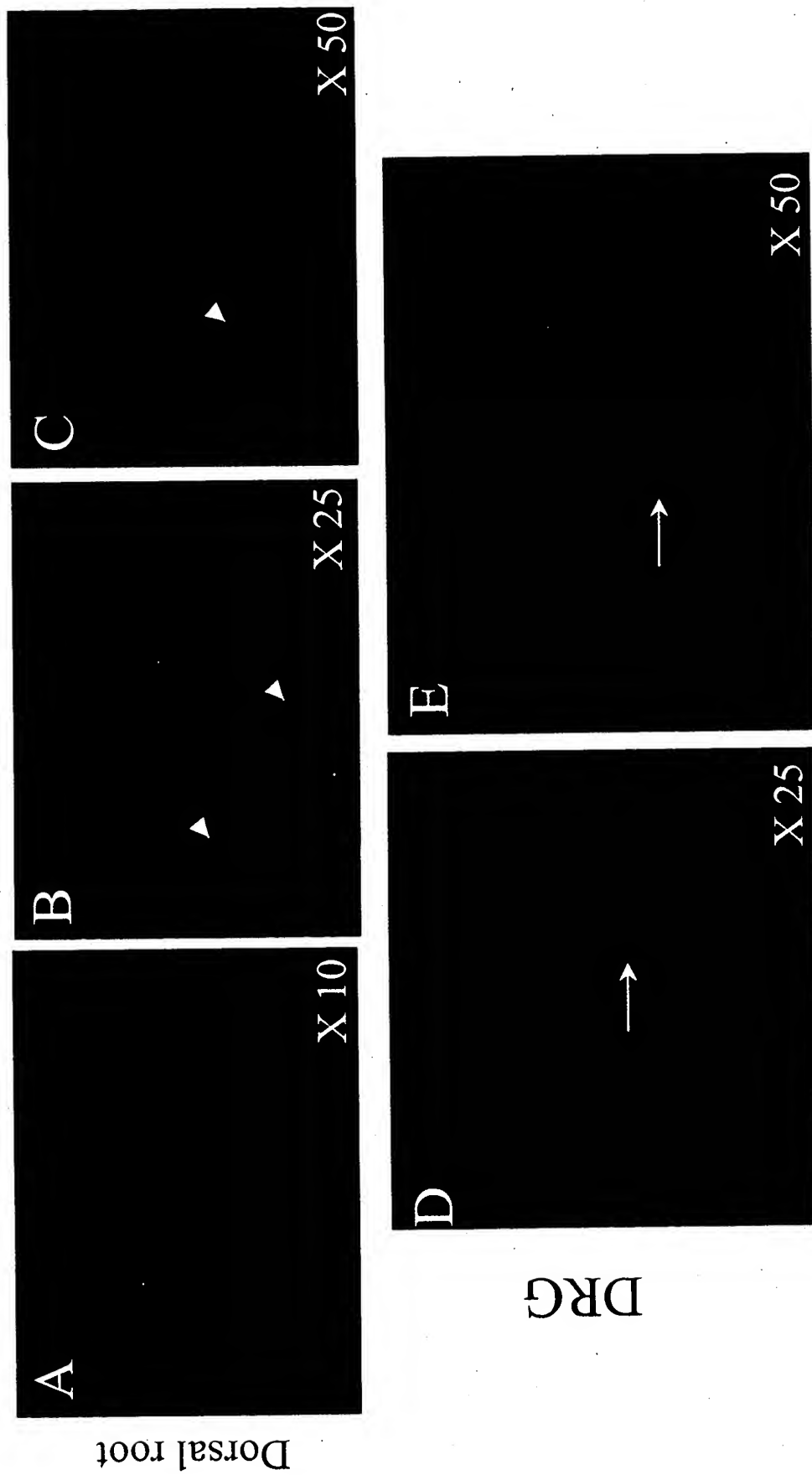


Figure 23

SEQ ID NO:12

NUCLEOTIDE SEQUENCE OF RABIES VIRUS STRAIN ERA

Genbank: locus RAVGPLS, accession M38452

```
1  aggaaagatg gttcctcagg ctctcctggt tgtaccctt ctggtttttc cattgtgttt
61  tgggaaattc cctatattaca cgatactaga caagcttggt ccctggagcc cgattgacat
121 acatcacctc agctgcccaa acaatttggt agtggaggac gaaggatgca ccaacctgtc
181 agggttctcc tacatggaac ttaaagttgg atacatctta gccataaaaa tgaacgggtt
241 cacttgcaca ggcgttgtaga cggaggctga aacctacact aacttcgttg gttatgtcac
301 aaccacgttc aaaagaaagc atttccgccc aacaccagat gcatgtagag ccgcgtacaa
361 ctggaagatg gccggtgacc ccagatatga agagtctcta cacaatccgt accctgacta
421 ccgttggttc cgaactgtaa aaaccaccaa ggagtctctc gttatcatat ctccaagtgt
481 agcagatttg gacctatatg acagatccct tactcgagg gtcttcctta gcgggaagtg
541 ctcaggagta gcggtgtctt ctacctactg ctccactaac cacgattaca ccatttggat
601 gcccgagaat ccgagactag ggatgtcttg tgacattttt accaatagta gagggaagag
661 agcatccaaa gggagtgaga cttgcggctt ttagatgaa agaggcctat ataagctttt
721 aaaaggagca tgcaaaactca agttatgtgg agttctagga cttagactta tggatggaac
781 atgggtcgcg atgcaaacat caaatgaaac caaatggtgc cctcccgatc agttggtgaa
841 cctgcacgac tttcgctcag acgaaattga gcacctgtt gtagaggagt tggtcaggaa
901 gagagaggag tgtctggatg cactagagtc catcatgaca accaagtcag tgagtttcag
961 acgtctcagt catttaagaa aacttgctcc tgggtttgga aaagcatata ccatattcaa
1021 caagaccttg atggaagccg atgctcacta caagtcagtc agaacttgga atgagatcct
1081 cccttcaaaa ggggtgtttaa gagttggggg gaggtgtcat cctcatgtga acggggtgtt
1141 tttcaatggt ataattattg gacctgacgg caatgtctta atcccagaga tgcaatcatc
1201 cctcctccag caacatatgg agttgttgga atcctcggtt atcccccttg tgcacccctt
1261 ggcagaccgg tctaccgttt tcaaggacgg tgacgaggct gaggattttg ttgaagtcca
1321 ccttcccgat gtgcacaatc aggtctcagg agttgacttg ggtctcccga actgggggaa
1381 gtatgtatta ctgagtgcag gggccctgac tgccttgatg ttgataattt tcctgatgac
1441 atgtttaga agagtcaatc gatcagaacc tacgcaacac aatctcagag ggacagggag
1501 ggaggtgtca gtcactcccc aaagcgggaa gatcatatct tcatgggaat cacacaagag
1561 tgggggtgag accagactgt gaggactggc cgtcctttca acgatccaag tcctgaagat
1621 cacctcccct tgggggggttc tttttaaaaa
```


Figure 24

SEQ ID NO:13

AMINO ACID SEQUENCE OF RABIES VIRUS STRAIN ERA

Genbank: locus RAVGPLS, accession M38452

PID:g333574"

MVPQALLFVPLLVFPLCFGKFPIYTILDKLGPWSPIDIHHLSCPNNLVVEDEGCTNLSG
FSYMELKVGYILAIKMNGFTCTGVVTEAETYTNFVG YVTTTTFKRKHFRPTPDACRAAYN
WK MAGDP RYEESLHNPYPDYRWLRTVKTTKESLVIISPSVADLDPYDRSLHSRVFPSGK
CSGVAVSSTYCSTNHDTIWMPENPRLGMSCDIFTNSRGKRASKGSETCGFVDERGLYK
SLKGACKLKL CGVLGLRLMDGTWVAMQTSNETKWCPDQLVNLHDFRSDEIEHLVVEEL
VRKREECLDALESIMTTKSVSFRRLSHLRKLVPGFGKAYTIFNKTLMEADAHYKSVRTW
NEILPSKGCLRVGGRCHPHVNGVFFNGIILGPDGNVLIPEMQSSLLQQHMELLESSVIP
LVHPLADPSTVFKDGDEAEDFVEVHLPDVHNQVSGVDLGLPNWGKYVLLSAGALTALML
IIFLMTCCRRVNRSEPTQHNLRGTGREVSVTPQSGKIISSWESHKSGGETRL

Figure 25

SEQ ID NO:14 ERAdm

ATGGTTCCTCAGGCTCTCCTGTTTGTACCCCTTCTGGTTTTTCCATTGTGTTTTGGGAA
ATTCCCTATTTACACGATCCCAGACAAGCTTGGTCCCTGGAGCCCGATTGACATACATC
ACCTCAGCTGCCCCAAACAATTTGGTAGTGGAGGACGAAGGATGCACCAACCTGTCAGGG
TTCTCCTACATGGAACCTTAAAGTTGGATACATCTTAGCCATAAAAAATGAACGGGTTTAC
TTGCACAGGCGTTGTGACGGAGGCTGAAACCTACACTAACTTCGTTGGTTATGTCACAA
CCACGTTCAAAGAAAGCATTTCCGCCCAACACCAGATGCATGTAGAGCCGCGTACAAC
TGGAAGATGGCCGGTGACCCCAGATATGAAGAGTCTCTACACAATCCGTACCCTGACTA
CCGCTGGCTTCGAACTGTAAAAACCAACCAAGGAGTCTCTCGTTATCATATCTCCAAGTG
TAGCAGATTTGGACCCATATGACAGATCCCTTCACTCGAGGGTCTTCCCTAGCGGGAAG
TGCTCAGGAGTAGCGGTGTCTTCTACCTACTGCTCCACTAACCACGATTACACCATTTG
GATGCCCCGAGAATCCGAGACTAGGGATGTCTTGTGACATTTTTACCAATAGTAGAGGGA
AGAGAGCATCCAAAGGGAGTGAGACTTGCGGCTTTGTAGATGAAAGAGGCCTATATAAG
TCTTTAAAGGAGCATGCAAACTCAAGTTATGTGGAGTTCTAGGACTTAGACTTATGGA
TGGAACATGGGTGCGCATGCAAACTCAAAATGAAACCAAATGGTGCCCTCCCGATCAGT
TGGTGAACCTGCACGACTTTCGCTCAGACGAAATTGAGCACCTTGTTGTAGAGGAGTTG
GTCAGGAAGAGAGAGGAGTGTCTGGATGCACTAGAGTCCATCATGACAACCAAGTCAGT
GAGTTTCAGACGTCTCAGTCATTTAAGAAAACCTGTCCCTGGGTTTGGAAGCATATA
CCATATTCAACAAGACCTTGATGGAAGCCGATGCTCACTACAACCTCAGTCATGACTTGG
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GAACGGGGTGTTTTTCAATGGTATAATATTAGGACCTGACGGCAATGTCTTAATCCCAG
AGATGCAATCATCCCTCCTCCAGCAACATATGGAGTTGTTGGAATCCTCGGTTATCCCC
CTTGTGCACCCCCTGGCAGACCCGTCTACCGTTTTCAAGGACGGTGACGAGGCTGAGGA
TTTTGTTGAAGTTCACCTTCCCGATGTGCACAATCAGGTCTCAGGAGTTGACTTGGGTC
TCCCGAACTGGGGGAAGTATGTATTACTGAGTGCAGGGGCCCTGACTGCCTTGATGTTG
ATAATTTTCCTGATGACATGTTGTAGAAGAGTCAATCGATCAGAACCTACGCAACACAA
TCTCAGAGGGACAGGGAGGGAGGTGTCAGTCACTCCCCAAAGCGGGAAGATCATATCTT
CATGGGAATCACACAAGAGTGGGGGTGAGACCAGACTGTGA

Figure 26

SEQ ID NO:15 CVS rabies virus glycoprotein

ATGGTTCCTCAGGTTCTTTTGTTGTACTCCTTCTGGGTTTTTCGTTGTGTTTCGGGAA
GTTCCCCATTTACACGATACCAGACAAACTTGGTCCCTGGAGCCCTATTGACATACACC
ATCTCCGCTGTCCAAATAACCTGGTTGTGGAGGATGAAGGATGTATCAACCTGTCCGGG
TTCTCCTACATGGAAGTCAAAGTGGGATACATCTCAGCCATCAAAGTGAACGGGTTTAC
TTGCACAGGTGTTGTGACAGAGGCAGAGACCTACACCAACTTTGTTGGTTATGTCACAA
CCACATTCAAGAGAAAGCATTTCCGCCCCACCCAGACGCATGTAGAGCCGCGTATAAC
TGGAAGATGGCCGGTGACCCAGATATGAAGAGTCCCTACAAAATCCATACCCCGACTA
CCACTGGCTTCGAACTGTAAGAACCACCAAAGAGTCCCTCATTATCATATCCCCAAGTG
TGACAGATTTGGACCCATATGACAAATCCCTTCACTCAAGGGTCTTCCCTGGCGGAAAG
TGCTCAGGAATAACGGTGTCTCTACCTACTGCTCAACTAACCATGATTACACCATTTG
GATGCCCCGAGAATCCGAGACCAGGGACACCTTGTGACATTTTTTACCAATAGCAGAGGGA
AGAGAGCATCCAACGGGAACAAGACTTGC GGCTTTGTGGATGAAAGAGGCCTGTATAAG
TCTCTAAAAGGAGCATGCAGGCTCAAGTTATGTGGAGTTCTTGGACTTAGACTTATGGA
TGGAACATGGGTCGCGATGCAAACATCAGATGAGACCAAATGGTGCTCTCCAGATCAGT
TGGTGAATTTGCACGACTTTCGCTCAGACGAGATTGAGCATCTCGTTGTGGAGGAGTTA
GTCAAGAAAAGAGAGGAATGTCTGGATACATTAGAGTCCATCATGACCACCAAGTCAGT
AAGTTTCAGACGTCTCAGTCACCTGAGAAAACCTGTCCCAGGGTTTGGAAGAGCATATA
CCATATTCAACAAAACCTTGATGGAGGCTGATGCTCACTACAAGTCAGTCCGGACCTGG
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GAACGGGGTGTTTTTCAATGGTATAATATTAGGGCCTGACGACCGTGTCCTAATCCCAG
AGATGCAATCATCCCTCCTCCGGCAACATATGGAGTTGTTGGAATCTTCAGTTATCCCC
CTGATGCACCCCCCTGGCTGACCCTTCTACAGTTTTTCAAAGAAGGTGATGAGGCTGAGGA
TTTTGTTGAAGTTCACCTCCCCGATGTGTACAAACAGATCTCAGGGGTTGACCTGGGTC
TCCCGAACTGGGGAAAGTATGTATTGATGACTGCAGGGGCCATGATTGGCCTGGTGTTG
ATATTTTCCCTAATGACATGGTGCAGAAGAGCCAATCGACCAGAATCGAAACAACGCAG
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Figure 27

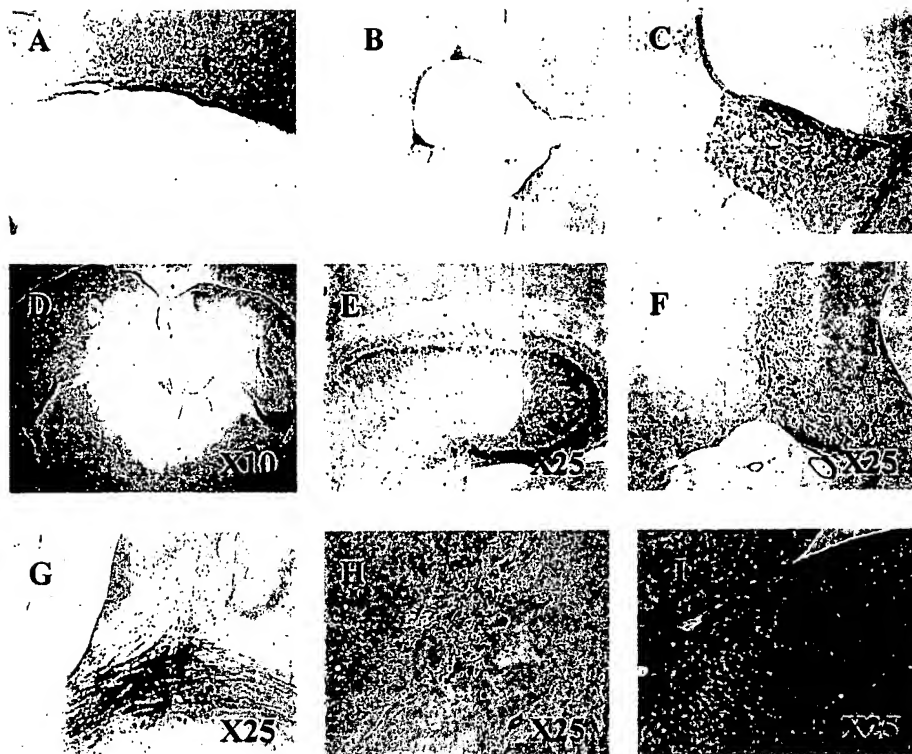


Figure 28

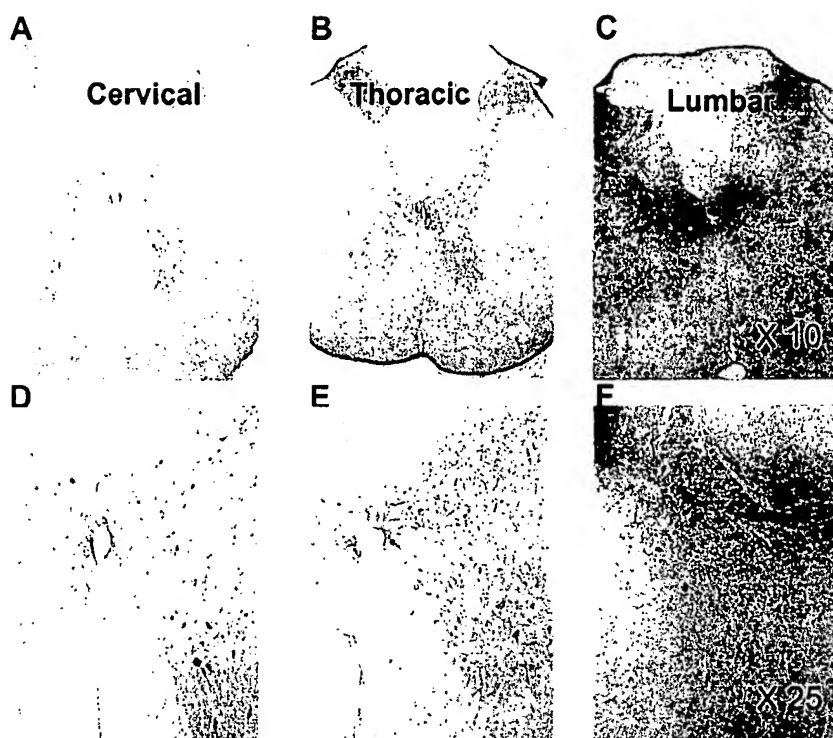
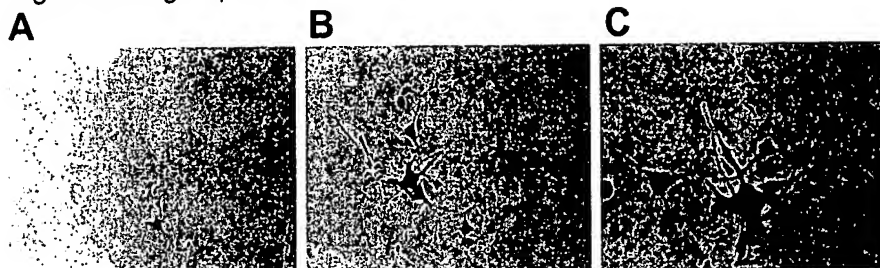


Figure 29

x-gal staining : spinal cord



β -gal immunostaining : spinal cord



x-gal staining : gastrocnemius muscle



Figure 30

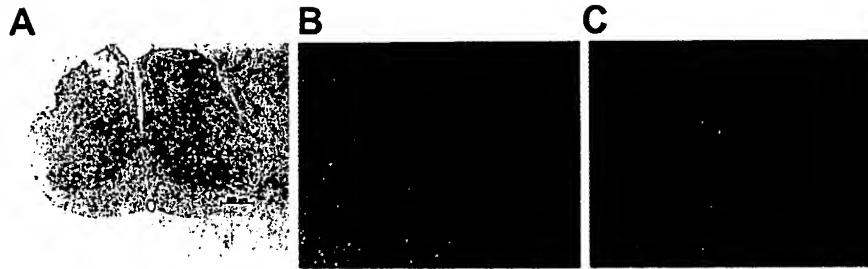


Figure 31

Spinal cord

A



B



C



Cortex

D



Brain stem

E

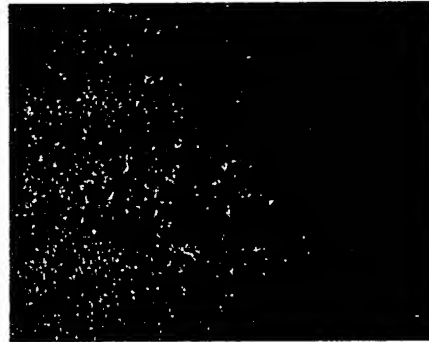
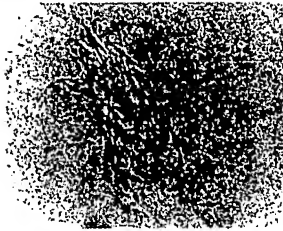


Figure 32

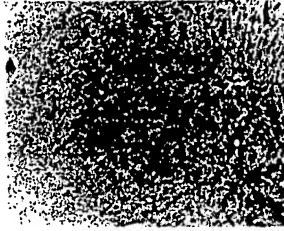
Globus pallidus

A



Cortex

B



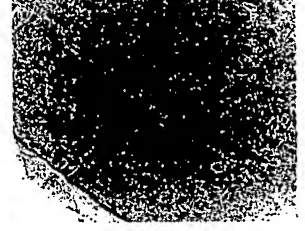
Reticular thalamus

C



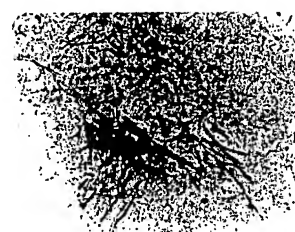
Substantia nigra

D



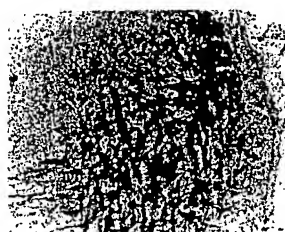
Genic nuclei

E



Parabrachial nuclei

F



Ventral cochlear nuclei

G



Facial nuclei

H

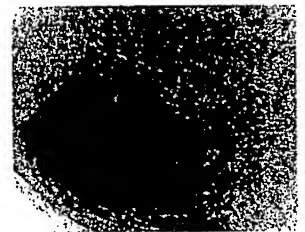


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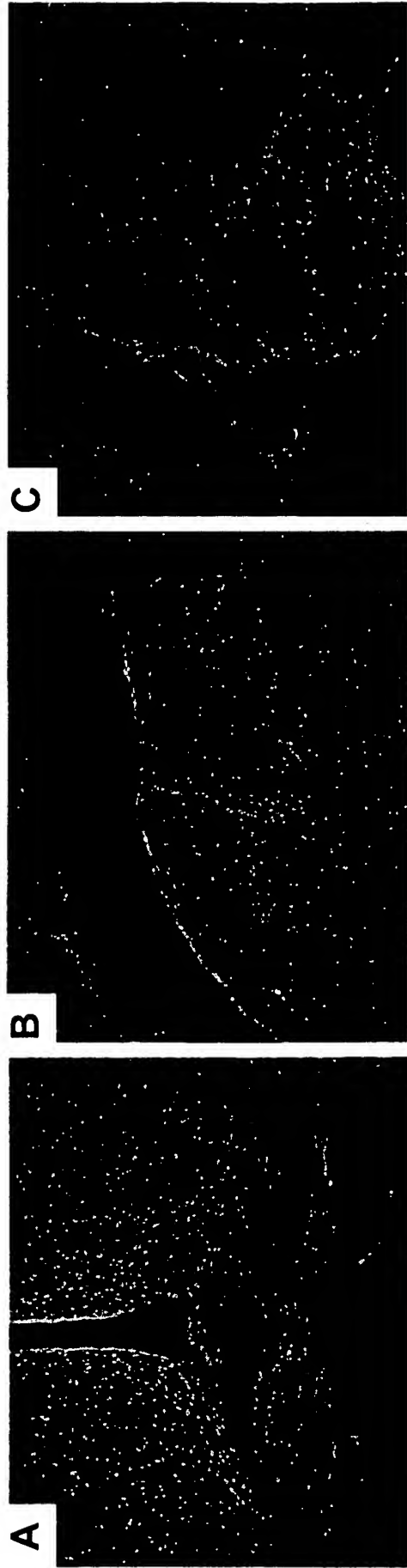


FIGURE 34

REPLACEMENT VECTOR



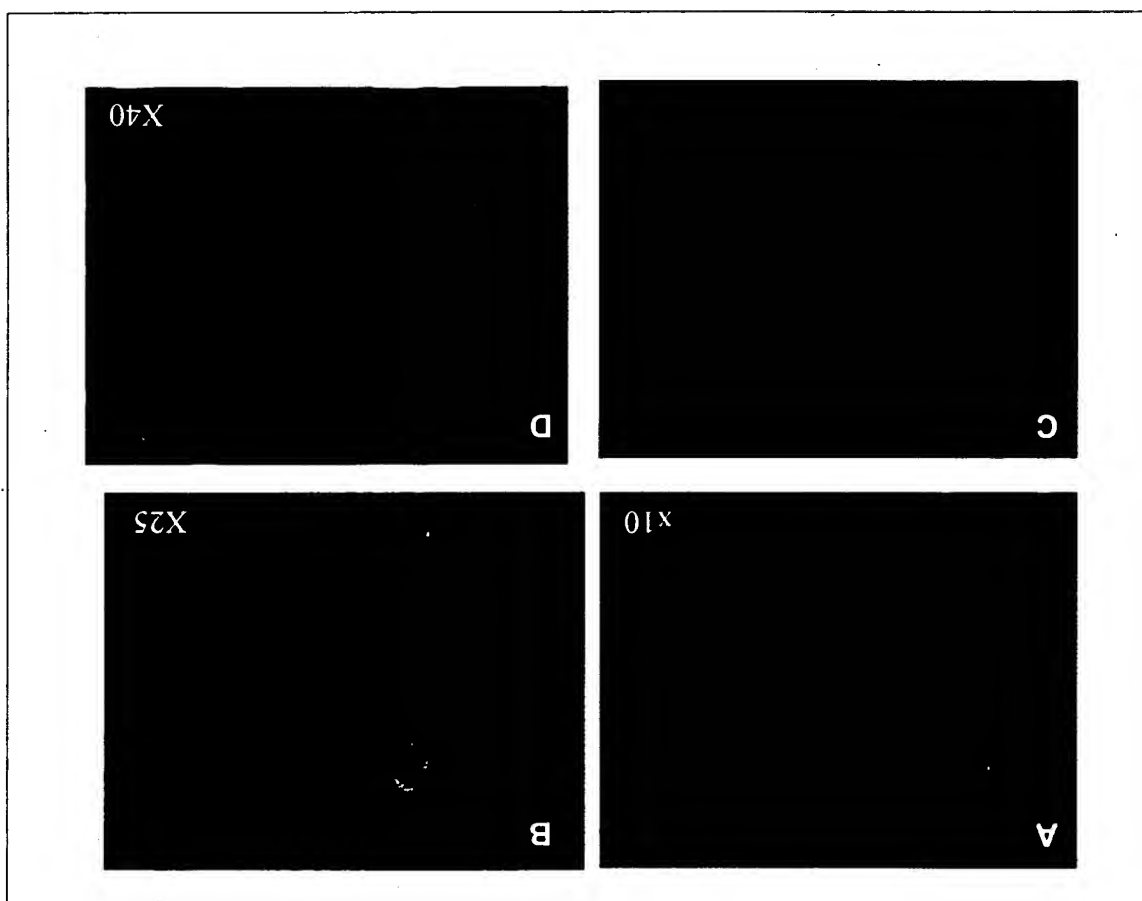


FIGURE 35

FIGURE 36

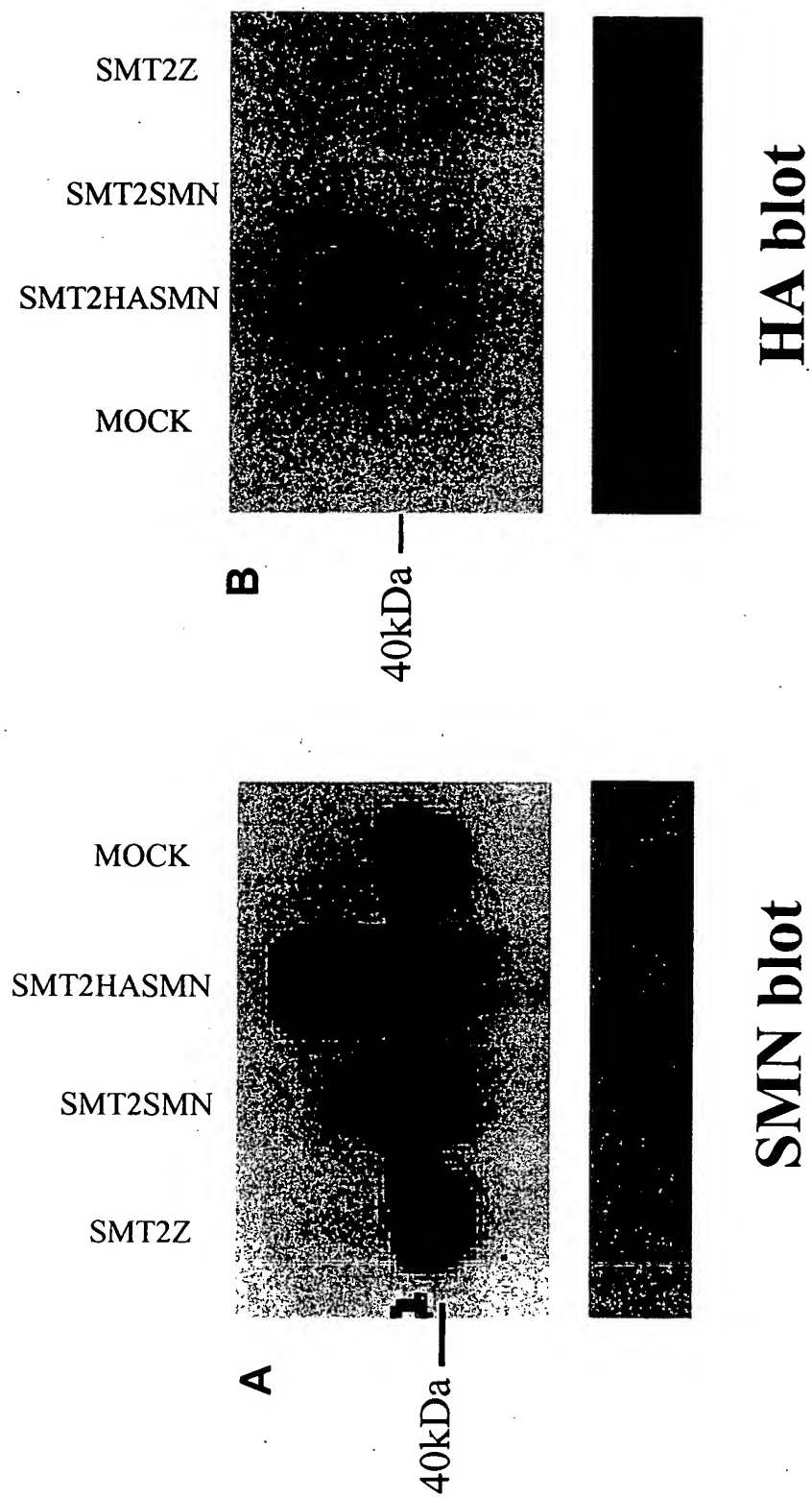


FIGURE 37

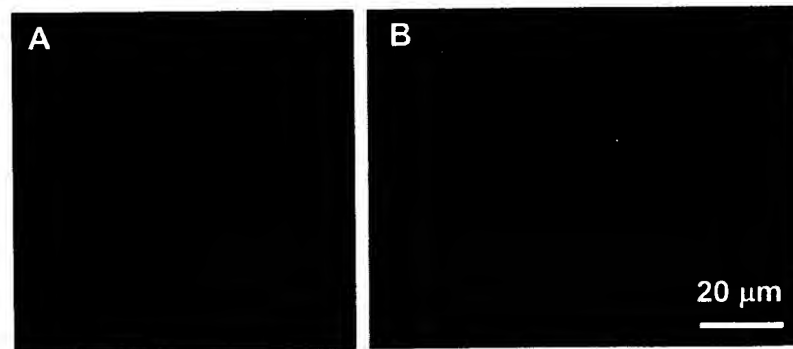


FIGURE 38

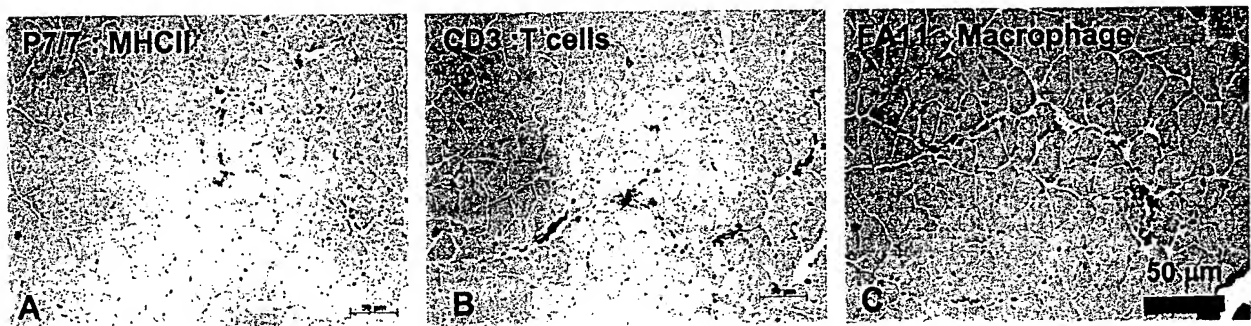


FIGURE 39

